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# P103 - The Relationship Between the Hormonal Change and Age, Gender, Tumor Size, and the Type of Surgery in the Surgical Treatment of Pituitary Adenomas

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## Resumen

**Objectives:** The aim of this presentation is to evaluate the relationship between the hormonal change and age, gender, preoperative tumor size and type of surgery in patients who underwent surgical treatment.

**Material and methods:** Clinical, radiological data and hormonal profiles of 85 patients who underwent surgical treatment for pituitary adenoma between 2008 and 2012 are reviewed. The preoperative pituitary hormone values (Prolactin, GH, ACTH, TSH, FSH and LH) were compared with those of early (first 3 days) and late (1-3 months) postoperative periods. Seventy-three patients (85.88%) were operated using endoscopic transsphenoidal route, 12 patients (14.12%) were operated by transcranial pterional approach.

**Results:** Based on the comparison of preoperative, early and postoperative hormone levels; there was statistically significant changes in prolactin, TSH, FSH and LH values ($p < 0.05$), and no significant changes in ACTH and GH values. Moreover, there was no significant change in ACTH, GH, prolactin and TSH values based on the gender of patients. There was only a significant increase in late postoperative period in FSH and LH levels among the female patients.

**Conclusions:** Hormonal change became more significant only in GH levels by the age. Surgical treatment is very effective on the decrease of prolactin, TSH, FSH and LH levels in patients with pituitary adenomas. The hormonal changes after surgery are not related with gender, preoperative tumor size and type of surgery.

***Key words:*** *Pituitary adenoma. Surgical treatment. Hormone. Age.*